

Meeting Description: Michigan Geographic Framework Users Meeting

Date: March 1, 2001

Time: 10:00 a.m.

Location: George W. Romney Building, 10th Floor, Michigan Information Center Conference Room

I. Approval of March meeting minutes

II. Geographic Framework Program

A. Phase 2 Status

Rob Surber, MIC, reported that the seaming work remains to be done on counties that interface with Wayne and Oakland Counties (Lapeer, Genesee, Livingston, and Macomb Counties). MIC still plans to finish Phase 2 work on Wayne County by mid-March. The Phase 3 polygon build for Oakland County has been done, just seaming remains to be done. Wayne County doing polygon build in parallel with final work on Phase 2. In mid-March MIC plans to give Wayne County what is available for them to put into their conflation process. Wayne County is taking all of MIC's attribution and conflating it to a more positionally accurate centerline product that was generated from digital ortho photography. MIC verified that Wayne County's topology rules on their unattributed centerline product are similar to MIC and will provide 1-to-1 matches during the transfer. Hopefully, by Version 2 there will be a fully attributed framework on the positionally accurate line work. A Version 1 of Wayne County will be released from MIC based on the original line work and it will be available this spring. Wayne County's vendor has tweaked their conflation routines enough that they are getting 95-98% correct transferable data in their test areas. Steve Perry, Wayne County, offered planimetric data and centerline data for MIC to use for seaming. Wayne County's centerline and ortho's are of a higher accuracy than the surrounding counties, which will be moved to the higher position line work. MIC has the SEMCOG version of Oakland County out.

Bill Enslin, MSU Center for Remote Sensing and GIS, stated that they are using framework files to create files that the viewer uses. MSU has revised the Themer Program. It takes the framework files and creates the independent themes. It also attempts to build any polygon coverages – to date have only built counties, minor civil divisions (MCD), and cities. The Themer Programs used to read sharpe files and now reads ArcInfo coverage file. Had to change because number of attributes in the file is above 128, which exceeds the maximum that ArcView can handle. Also revised to read the framework classification code (FCC) code. If line segment does not have FCC code, the program reverts to the MIRIS level number and then to the census feature attribution code. This is necessary because clean Version 1 files with FCC are not available. Any problems with attribute errors or topology are detected and reports are created. It identifies x-y locations for problems. MSU is now receiving all framework files by county - once individual counties are converted and want a multi-county region must then mosaic together. Themer took 13 hours to run through all counties of the state and generate individual themes. The good news is that with the Version 1 files, there are 2 counties with minor FCC problems. This is a good independent test for MIC's product. The topology check found a fair number of errors in building county MCDs – some relate to attribute switches – the left value should have been zero instead of right value. MSU will report these to MIC and clean up. Must merge together. Some agencies are taking into SDE, all topology must be correct or it will abort. There is a similar problem with merging all counties together into a district file; there were issues on building the region for counties and MCDs. The edge matching detected sliver polygons. The program does indicate where the errors occurred and will advise MIC. When MSU merged counties together, were some cases where the format of the database files were not identical. ArcInfo likes everything to be perfect.

Rob Surber, MIC, asked if it was a cross check between regions.

Bill Enslin, MSU, responded that it was for the Cadillac region.

Rob Surber, MIC, stated MIC should compare details with MSU. When in the midst of this stuff it is helpful to have an independent view.

Bill Enslin, MSU, commented they are trying to get ready because there will be other polygon coverages – school districts, census block groups, etc. Overall Bill is encouraged by what they found.

B. Polygon Build / Act 51 / Seaming Update

Rob Surber, MIC, reported that all polygons are built through the MIC process except Wayne County. All seaming is complete except interfaces with Oakland and Wayne Counties.

C. 2K TIGER Integration: Tracts and Block Groups

Rob Surber, MIC, reported that TIGER has been released from the Census Bureau and the links are on the MIC web site (www.state.mi.us/dmb/mic). MIC wrote programs in AMLs that take the tract and block group level labels and post into the framework file as an additional set of attributes. In addition to 1990, will also have 2000. It is not a totally automated process, because MIC conflated TIGER and things don't line up any more. As much as possible is automated, but there is some manual work. MIC met with SEMCOG and they will work with attribution at the MIC block group and tract and input it into their work. Then MIC will take back SEMCOG's work into framework. MIC is testing programs in St. Clair County and will send to SEMCOG. 1990 polygons were done for St. Clair County and MIC is adding 2000. The work is going well – the AMLs are working. Might want to run Bill Enslin's program on this. Posting labels for tract numbers to enable chaining together and build polygons. Tested in Ingham County to see if block lines needed to complete polygons. There were 1 or 2 in tract level and know there will be more at the block group level. As long as a road is not missing it is a matter of attaching to the existing network with extra block extensions. They are not adding rail so other features should not be a problem.

Bill Enslin, MSU, stated that they are processing for polygons using FIPS codes and found codes that are not in the table. He thought they were using most recent download. How often does this data get updated.

Joe Kogelman, U.S. Bureau of the Census, stated that he would send an e-mail with the data. The FIPS and census codes are different. Census Bureau uses both. United States Geological Survey (USGS) assigns FIPS codes.

Rob Surber, MIC, commented that he has the name and number at USGS. MIC downloads information when there is a change.

Everett Root, MIC, stated that there were changes post-1990 and they were incorporated. Then they were changed back and MIC incorporated them back. MIC has a table to run them against that MIC keeps up-to-date.

Rob Surber, MIC, added that there was one change between 1990 TIGER and 2000 TIGER in Calhoun County – one township changed to a charter township.

Everett Root, MIC, commented that several of the post-1990 changes were charter townships and were changed back to pre-charter data.

Rob Surber, MIC, stated that MIC will have an equivalency that represents a slice in time of the FIPS codes used for Census 2000. That will then be related to framework. If looking at TIGER, MIC will try to post tract and block group coverages as soon as possible. Would like people to use framework. TIGER files and import utilities are available. MIC got the pre-release version of ArcInfo, which has a new TIGER tool in it. The current version of ArcInfo brings in everything but it also brings in garbage data.

D. Repositioning Update

1. Standards Document: Hydro and Boundaries

Rob Surber, MIC, distributed hydro and boundary issues (related to the realignment work) document, which is also posted on MIC's web site. Please contact Rob with any comments at (517) 373-7910 or surberr@state.mi.us. MIC is looking for assistance for quality control checking with known points. MIC has not gotten many comments on roads – either people are still reviewing or the work is great.

Bill Enslin, MSU, asked if MIC is making their point file available.

Everett Root, MIC, responded that the data is in the coverage. It is an annotation feature.

Bill Enslin, MSU, commented that the information could be useful for applications. When MIC is doing county repositioning, are the gaps in rivers being identified.

Everett Root, MIC, responded that a lot of gaps are often representations of drainage systems or wetlands. Nobody has mentioned gaps in visible rivers on photos.

Rob Surber, MIC, suggested that MIC check to be sure that it is not being overlooked.

Bill Enslin, MSU, commented that he would like to have the MSU staff meet with MIC staff to discuss previous points and streams. There is interest in having a better streams file. Is there any way to patch it and go along instead of putting a point there.

Everett Root, MIC, responded that if there are two lines, MIC is connecting them. MIC is not splitting roadways if the lines cross roadways.

Rob Surber, MIC, added that this is for efficiency and would pick up in maintenance. Rob urged people to review MIC's web site. MIC wants this to be a workable product.

E. Digital Ortho Update

Everett Root, MIC, reported the flow of digital ortho quarter quads (DOQQ) from innovative partnership (IP) goes to Michigan Department of Natural Resources (MDNR), they are doing reprojection work, keeping a copy, and giving copy a MIC. There are 40 files (combination of black / white and color) from Iron County coming. MIC bought the rest of the black and white 25 quarter quads for Ontonagan County – this provides complete coverage for this county. Keweenaw and Baraga Counties are done. Expect Chippewa and Mackinaw Counties to flow in pretty soon and then Cheboygan and Presque Isle Counties.

Rob Surber, MIC, commented that MIC and MDNR came up with a workable plan that they think will work well. MIC is going to create county map sets from framework and put on them up on the web site. They will be C size base maps that could be useful.

F. Imagery Program

Rob Surber, MIC, reported that MIC is collecting contributions and would like to have as much as possible to have a complete proposal. Then a meeting will be scheduled. The last meeting was positive with a lot of good input and suggestions.

III. Michigan Department of Natural Resources (MDNR) Projects and Activities

Nobody in attendance.

IV. Michigan Department of Transportation (MDOT) Projects and Activities

Joyce Newell, MDOT, reported the Bureau of Management is getting involved in marketing ideas of framework for current users. There was a proposal on how to make physical reference (PR) number more palatable, to staff who are more familiar with control sections. They are looking at stand-alone software and caliper software to allow click-and-point of segments of roads to locate mile points for project development. There are several ways to find PR mile points. If control sections are used, another source will be needed to provide beginning and ending mile points. Will probably use control sections as names. Won't use mile points for control sections any more because they are not linear.

Rob Surber, MIC, stated that the positive side of this is that people found out that a lot of people are developing around framework already.

Joyce Newell, MDOT, commented that the other positive point is that the marketing plan will not change direction at all, because they knew it needed to be done and this will put more immediate emphasis on it. MDOT will soon be getting current and future projects to Michigan State Industries (MSI) to code PR mile points. Beginning October, for all federally funded projects, MDOT finance people will have to provide a national route inventory number. This will also be from framework. This will also be a driving point. MDOT will focus on projects not yet completed and then determine the interest on picking up the historical data. One problem is that the linear referencing system is not as detailed as the framework will be. For example, on freeways there is a PR number going north and one going south. Washington only wants one PR number (north) - even if there is a southbound project. MSU asked for 10 years of annual daily traffic figures for an environmental impact statement for the US 31 realignment project in Allegan, Ottawa, Muskegon, and Kent county areas. MDOT gave MSU 10 paper maps. Then MSU requested the data in ArcInfo. MDOT will send 4 framework coverages, 4 transaction files, '95 Michigan Accident Location Inventory (MALI). MDOT had hope to have the review of attribution for the north region done by now, but have had computer problems.

Rob Surber, MIC, added that it is pieced together and as you visually inspect it as whole and things may stand out as problems. MDOT looks at how things flow and does a quality control check. Rob also added that MIC has created the control section PR atlas for half of the state and hope to have entire the state by mid-April. These are being made as PDFs and sent to MDOT. At some point MDOT will make them available on their web site.

V. Michigan Department of Environmental Quality (MDEQ) Projects and Activities

Steve Miller, MDEQ, reported that MDEQ has been exercising data from MIC. Met with counties and they were impressed with data and the viewer that Bill Enslin, MSU, developed. MDEQ is now bringing information to their field offices. It is good to look at the information – a freeway segment appeared in the middle of national forest. Steve has been questioned why there is independent mapping when there is IMAP. There are many applications that don't have the capability to do everything that needs to be done in a stand-alone system. Many county health staff are not allowed to use the Internet. They need to have the data accessible. The Cadillac district staff wants the data on their laptops to take into the field. but not wireless yet. The data is getting out and being used. Appreciates MIC's and MSU's support. All health districts but two were at the meeting.

Jeroen Wagendorp, Allegan County, stated that he noticed that there is a leveling off of interest at county level.

Steve Miller, MDEQ, responded that he saw problems last year. There is a lot of staff turnover at the county level. This time, MDEQ funded a network of universities around the state that will install the software for the counties.

Rob Surber, MIC, asked if MSU extension does this.

Michael Hass, MSU Extension Service - Branch County, responded that technology and extension are trying to form a partnership, but a lot of counties don't have Internet access.

Bill Enslin, MSU, added that it would be more helpful demonstrate the viewer with data that is part of their business operations. There must be an understanding of their daily operations and incorporate their data either into the web or as a stand-alone. Getting the data on the laptop to take into the field is important.

Steve Miller, MDEQ, stated that the counties have data they want to bring in and with a coordinate it can be done.

Michael Hass, MSU Extension Service - Branch County, added that their county health department will take a downloaded computer into the field and the extension service will update for them.

VI. Michigan State Police (MSP) Projects and Activities

Eric Nischan, MSP, reported that they are wrestling with servers and ArcIMS. There are network issues. The formation of MSP GIS Coordinating Group will meet early March.

Rob Surber, MIC, asked if the meeting would be open to others or do they want to get organized first internally.

Eric Nischan, MSP, responded that it they would probably want to get organized first and then want Rob and Eric to present about the framework. MSP wants to stay coordinated with the state and with the framework project.

Rob Surber, MIC, stated that he was asked to sit in on a discussion regarding the Law Enforcement Agency Management System (LEAMS) project.

Eric Nischan, MSP, commented that there is some question whether the GIS Coordinating Group and the LEAMS will be coordinating or duplicating effort. The GIS Coordinating Group is of a more broad scope. LEAMS focus is to provide a seamless system from the trooper to the legal system. No technology investments have gone into LEAMS.

Ann VanSlembrouck, SEMCOG, asked if Eric knew about the CLEMIS project in southeast Michigan. At their next meeting they will discuss CLEMIS and suggested that Eric attend. Oakland County has large grant to get this program started.

Rob Surber, MIC, suggested that Diane Sherman, MSP, would be a good person to attend.

VII. Michigan State Industries (MSI) Projects and Activities

Carol Woodman, MSI, nothing to report.

VIII. MIC Projects and Activities

A. Tax Reverted Management System

Rob Surber, MIC, reported that the *Detroit Free Press* showed MIC's work on tax reverted properties in Detroit. MIC has been working with the governor's office on a program to get state holdings into the hands of community leaders (Habitat for Humanities, church groups, etc.) who are interested in revitalizing the properties. MIC's role to integrate data sets from six state departments and county and cities. MIC has been working with Bill Enslin, MSU, with this specialized application to access and query reports. Department of Management and Budget is managing a contract for people to visually inspect photos of properties and incorporate that data into the GIS.

B. Census 2000 Data

Rob Surber, MIC, reported that the MIC plans to receive the latest P.L. 94-171 redistricting data in late March. This will be the first sub-state level of aggregations of voting age population with racial breakdown to the block level. It will be used for redistricting boundaries for the legislative district and county commissioner districts. MIC is involved at the state level to compile and integrate information. MIC plans to have census data access site for reporting standard and ad hoc reporting with export capability. Will do additional work to census bureau data and make available on the Internet for easy access. A lot of GIS users use the census data.

Joe Kogelman, U.S. Bureau of the Census, stated that the P.L. data is sent to governor, the house majority and minority leaders, and senate majority and minority leaders at the same time. Then the Bureau has to manually call each to confirm that they received the data. After the Bureau has a written (FedEx delivery signature) and verbal confirmation, then they will advise the Regional Census Office that the data has been received. The Regional Census Office will

contact a limited number of special governments to advise population counts before data is released to the media. Within a couple of days, the data will be put on the web site for people to download for free. The data will include total population, population over the age of 18, all various race categories. Housing data by jurisdiction will be released in May. Summary File 1 will be released progressively June on. The Comp Questions Resolution Program will be used to compare and search for discrepancies. This process starts June of this year and continues until 2003. There will be an "800" number available for the public to call.

Rob Surber, MIC, commented that they are only talking about a movement of numbers.

Joe Kogelman, U.S. Bureau of the Census, clarified that if somebody gives an address that is not in the records already, the Census Bureau will not go out and enumerate. If political boundary is wrong they will fix it and this may cause a shifting of housing units. If within the same jurisdiction, everything remains the same.

Rob Surber, MIC, stated that the MIC has found questionable boundaries of cities and townships. Asked Joe if that would be in the same process.

Joe Kogelman, U.S. Bureau of the Census, responded that it would be the same process and also the boundary annexation data. Census Bureau went through a two-step program last year to verify boundaries. The years ending 8, 9, and 0 every jurisdiction in the country was sent a boundary annexation survey map. Last year they were sent a File Boundary Validation, with the once again to correct.

Rob Surber, MIC, commented that MIC found one township that was incorrect.

IX. MSU Center for Remote Sensing and GIS Projects and Activities

Bill Enslin, MSU, reported that they are finalizing arrangements with ESRI for July through December training. All the training deals with the Arc GIS products - one session on ArcSDE and ArcObjects. This on MSU's web site and IMAGIN's web site. There will be postcard to all IMAGIN members informing them that IMAGIN will be releasing their name, full address, phone number, and e-mail information on the web site unless otherwise advised. In revising the web site, went to active server pages and anybody can post information to the site. The site has a calendar of events, meetings and dates, jobs, resumes, request for proposals (RFP), classified ads and training classes. Designed to foster communications. The web site is www.imagin.org On MSU's wish list – they would like MIC to come up with one consistent shoreline for the state that would be part of Version 1. There is consistency to all final Version 1 files, but not with those that are not to that stage yet. Bill is requesting that MIC add all the items (do not have to be populated) in Phase 2 files.

Everett Root, MIC, commented that some programs added fields that are there while working and then are dropped. Can work it out.

X. County / Local Projects and Activities

Jeroen Wagendorp, Allegan County, reported that all ortho's in Allegan County are in Michigan and Jeroen should see them soon. Allegan County will be provided with the digital elevation model (DEM). Analysts at TRW and there are 3 million points for Allegan County. In the future, hope there can be an application to correct old photos and distortions. Cannot wait to play with it. Jeroen called all counties to see what they are doing in GIS. 51 counties are up and running. Oakland County is at the top as far as what they are doing and Presque Isle needs help to stay functional. In between there is interesting work going on.

Joyce Newell, MDOT, commented that per Terry McNinch, Michigan Technological University, since Superior's Version 1 is out, he has had requests from every county in the Upper Peninsula for RoadSoft software.

Jeroen Wagendorp, Allegan County, added that he did not talk to Road Commissions. The issues in the Upper Peninsula are unlike the issues in the Lower Peninsula. Their parcel count is higher than the population count. Jeroen now has a nice picture of what is happening in the counties statewide.

Bill Enslin, MSU, asked if since we are filling in the gaps with DOQs and wondered if DEMs would or could be a part of that.

Everett Root, MIC, suggested checking with MDNR, either Gary Bilow or Sherm Hollander.

Jeroen Wagendorp, Allegan County, commented that LIDAR would set the standard, but in the interim it would be nice to compare the two.

Rob Surber, MIC, stated that it would be best to start with Gary Bilow. Asked if Jeroen planned to publish results of his calls to the counties. Thinks that it would be interesting.

Jeroen Wagendorp, Allegan County, would like to take findings of study back to counties, but not sure how.

Michael Hass, MSU Extension Service - Branch County, commented that in Branch Counties, the agencies are coordinated through his office, but the road commissions are behind in GIS. They are working on water quality pilot and GIS will be part of it. If the pilot is successful, they may go statewide. Branch County is limited because they don't have federal emergency management agency (FEMA) data necessary.

Jeroen Wagendorp, Allegan County, stated that Allegan County is currently working on a grant with FEMA through the MSP. Half of the work is being handled by the county and half by the Geography Department at Western Michigan University. The MSP is looking for more counties to be onboard to go through this exercise.

Rob Surber, MIC, commented there is grant money available through MSP, Emergency Management Division (EMD).

Eric Nischan, MSP, EMD, asked if Jeroen knew which grant the money was from and if it was for mitigation. FEMA likes money for mitigation projects.

Jeroen Wagendorp, Allegan County, responded that he is unsure. FEMA is driving the initiatives and has included other hazards to make it more attractive. This is very doable at the county level. The biggest problem is there are 35 zoning districts and the zoning code language – it is very sensitive.

XI. Regional Projects and Activities

Ann VanSlembrouck, SEMCOG, reported they are reconciling their Transportation Modeling Network and framework. They probably have two weeks left. Staff member went to ArcIMS training and SEMCOG will work on going from MapObjects to ArcIMS. One person doing web page, so unsure of the priority. SEMCOG is moving their offices in three weeks.

Laura Tschirhart, Tri-County Regional Planning Commission, reported that their land/use cover project is not complete. They did receive the files and are doing a plot for each county. There are mistakes. They are now doing sample sections for each county and need to do more quality control work.

Rob Surber, MIC, added that the good news is that framework for the Tri-County's region is complete.

XII. Federal Projects and Activities

Joe Kogelman, U.S. Bureau of the Census, nothing else to report.

XIII. Other Issues

Ann VanSlembrouck, SEMCOG, asked if anything is being done with the survey.

Rob Surber, MIC, responded more reporting capability has been added. There has been a request from universities for students to put in information and be a part of it. Some of the businesses wanted to be able to add information about what they are doing. It will be used as more people enter information. The state continues to develop and promote. Would like more people to be involved. Comments and suggestions will be incorporated. Dan Metzger, MIC, did a presentation at the Geography Department at MSU and got good feedback.

XIV. Next Meeting Date

April 5, 2001, 10 a.m. until 12 p.m., George W. Romney Building, 111 S. Capitol, 10th Floor, Lansing, MI 48933

** If any changes or corrections are to be made to these minutes, please contact the Michigan Information Center at (517) 373-7910